Abstract

The simultaneous taking of water samples from the bottom of a column of water in the bed water above a water bed is of use for scientific investigation of the transition zone between the water bed and the water column lying above the same, for the determination of parameter gradients. Conventional bed water sampling devices with an arrangement of horizontally oriented sample containers at different water levels do not generally permit a non-invasive sampling. According to the invention, said ground water sampling device thus comprises central retainer rod (2) for the sample containers (3), which permanently rotate freely and easily in the bottom currents by means of a flow vane (6). All sample containers (3) comprise sealing devices (16) on both front surfaces (14, 15) and are flushed through with bed water originating from the corresponding level before the sampling. All sealing devices (16) are essentially instantaneously by means of a time-controlled actuator (10) which is mechanically activated by pushing up a trigger plate (8) after the adequately long placement of the ground water sampling device (1). High-resolution profiles of various parameters can thus be simply, precisely and reproducibly determined even in water of great depth, by means of said simple and robust bed water sampling device (1), which can be lowered by means of a simple steel cable (7).